The Role of E-Leadership in Optimizing Total Quality Management in Education

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ABSTRACT: E-Leadership or digital leadership has become a key factor in supporting the adoption of Total Quality Management (TQM) in academic settings. This article explores the role of digital leadership in enhancing educational quality through TQM implementation. The study uses a qualitative approach with case study methods to analyze how school principals and educational leaders leverage digital technology to support TQM initiatives. The results indicate that digital leadership can enhance management effectiveness, increase student engagement, and improve learning outcomes. However, there are challenges in its implementation, including resource limitations and resistance to change. This research provides practical recommendations to overcome these challenges, including providing adequate training and support for teachers and staff, and fostering an organizational culture that supports innovation. Policymakers and educational leaders should find great value in these findings as they apply TQM and digital leadership to enhance the quality of education.

Keywords: E-leadership, Total Quality Management (TQM), Education

INTRODUCTION

In the digital era, many aspects of life have changed, including education. Today, educational leadership must be able to utilize digital technology to enhance management and learning. All references must be primary references; avoid using "A in B" citations. Do not plagiarize others' work; if Turnitin shows a similarity score of more than 10% and the analysis indicates plagiarism, your article will be suspended or even rejected and not published. Digital leadership encompasses not only the use of technology but also the ability to inspire and lead change within educational organizations. Digital leaders must be able to effectively integrate technology into learning and management processes.

A management strategy known as total quality management (TQM) places a strong emphasis on ongoing quality improvement across the board for a company. In the context of education, TQM

aims to enhance the quality of learning, administration, and services provided to students. The integration of digital leadership and TQM in education can create a strong synergy to achieve higher educational goals. Educational leaders must have a clear vision of how technology can support quality improvement efforts.

It is essential for educational institutions to continuously innovate and improve their quality to remain competitive. Digital leadership and TQM can be key to achieving this goal. Many educational institutions have successfully implemented TQM with the help of digital technology. However, many have not yet utilized the full potential of digital leadership to support TQM.

In previous research conducted by Sunarsi et al. (2020), in an article titled "Effect of e-Leadership Style, Organizational Commitment, and Service Quality towards Indonesian School Performance", the research findings indicate that e-leadership, organizational commitment, and service quality all have a positive and significant impact on school performance. Specifically, the study suggests that effective e-leadership styles enhance educational outcomes, while strong organizational commitment significantly contributes to improved school performance. Additionally, service quality is shown to be crucial for enhancing school performance, supporting this relationship. Overall, the study emphasizes that these three factors are essential for achieving superior school performance, particularly in the context of the challenges posed by the industrial revolution 4.0. In this research, it is not only aimed at understanding how digital leadership can influence or support the improvement of service quality, but also more broadly in TQM.

It is important to understand how digital leadership can be integrated with TQM in the educational context and what factors influence the success of this integration. The purpose of this research is to clarify the role of digital leadership in supporting TQM and to examine theories of technology integration in education. Additionally, this study will assess how well TQM adoption and digital leadership may raise educational standards. Thus, this research is expected to make a significant contribution to the development of literature on digital leadership and total quality management in education.

METHOD

How well TQM adoption and digital leadership may raise educational standards. The primary methodology employed in this study is the literature review, which enables the researcher to gather, examine, and combine data from a variety of pertinent sources.

Finding pertinent literature sources is where the researcher starts. These resources include scholarly journals, books, research papers, essays, and other publications with an emphasis on TQM, digital leadership, and the use of technology in education.

Relevant literature is chosen using inclusion and exclusion criteria. The works must be written in English and published within the last four years (2020–2023) in order to be included.

RESULT AND DISCUSSION

This research highlights several limitations regarding the implementation of digital leadership in educational settings. One significant limitation is the resource constraints, which can hinder the effective adoption of e-leadership practices. Additionally, there is a fear of change among educators

and administrators, which can impede the transition to digital leadership models. These factors can create barriers to fully realizing the benefits of Total Quality Management (TQM) through e-leadership in education. Future research could focus on identifying and analyzing effective strategies for integrating digital leadership with TQM practices in various educational contexts.

E-Leadership (Digital Leadership)

E-leadership, also known as digital leadership, is an efficient fusion of electronic and conventional communication techniques that makes use of information and communication technology (ICT) for effective leadership. An e-leader must be able to use technology to further organizational objectives; they do not need to be technical experts (Ahuja et al., 2023). The use of information and communication technology to mediate social influence processes with the goal of altering beliefs, emotions, attitudes, behaviors, and performance is known as e-leadership. This is predicated on the capacity to construct and maintain team accountability, inspire and manage change, communicate precisely and effectively, provide adequate social contact, exhibit technology knowledge connected to ICT, and establish trust in a virtual setting (Wang et al., 2022).

E-leadership involves utilizing information and communication technology to unify and manage human resources across national, geographical, cultural, and other boundaries to achieve organizational goals. It entails having the capacity to effectively apply a variety of roles in a virtual setting while upholding the goals and objectives of the company (Sunarsi et al., 2020).

The aforementioned justification leads to the conclusion that digital leadership or e-leadership is leadership that utilizes information and communication technology (ICT) to effectively direct and manage human resources, both through electronic and traditional communication methods. E-leadership emphasizes the ability to use technology to achieve organizational goals. Furthermore, mediating social influence to alter attitudes, feelings, thoughts, behaviors, and performance is a component of e-leadership with the ability to communicate clearly, inspire change, build team accountability, and create trust in a virtual environment, as well as integrating various roles to cross national, geographical, and cultural boundaries in accordance with the organization's vision and mission.

Education's Use of Total Quality Management (TQM)

Specifically influenced by Deming's 14 principles and Juran's quality trilogy, Total Quality Management (TQM) is a system of practices, tools, and training that was established via the integration of management theories with quality concepts. By combining the hard and soft parts of management, TQM seeks to manage companies in a dynamic environment to guarantee customer satisfaction (Ali & Johl, 2021).

The goal of Total Quality Management (TQM) is to increase quality by implementing a managerial pattern. With management integrity as its primary attribute, this notion presents a novel management strategy for businesses. After being created first in business and industry, TQM was adapted and implemented in educational institutions. As a management strategy, TQM is acknowledged for enhancing organizational effectiveness and performance, offering a substitute for quality control, and guaranteeing customer happiness. Quality, which is closely tied to quality in educational institutions, is the main focus of its execution (Yusuf, 2023).

The concept of Total Quality Management (TQM) in education refers to an educational environment where all staff members and students actively engage in continuous improvement to

enhance customer satisfaction (Glaveli et al., 2021). By implementing a quality management system, Total Quality Management (TQM), also known as Total Quality Education (TQE), seeks to address the growing demands and expectations for quality in education on a local and international level. The application of TQM in academic settings, particularly universities, has demonstrated gains in both the financial and human domains. The success of Total Quality Management (TQM) in educational settings is contingent upon several factors, including involvement in ongoing quality improvement (CQM), teamwork, empowerment, assessment, rewards for excellence, training and development, and leadership that is dedicated to fostering a culture of quality. These are hotly debated topics.

Integration of Technology in Education

Educational technology refers to the development, system evaluation, and application of tools and techniques aimed at enhancing the teaching and learning process. This technology integration impacts the acceleration of digital literacy among the community (Salsabila et al., 2023). A planned strategic approach is needed in the integration of technology in education (Sholeh, 2023).

There are five strategic approaches that can be undertaken in the process of technology integration:

(1) Strategic Planning

This plan should include clear objectives, implementation strategies, the required budget, and appropriate policies and guidelines. The plan needs to be based on an analysis of the needs and challenges faced by educational institutions.

(2) Skill Development

It is crucial for teachers and educational staff to have adequate technological skills to effectively integrate technology into their educational practices. Training programs and professional development should be designed to enhance their digital literacy and technological skills. This will enable them to use technological tools and applications effectively in teaching and educational management.

(3) Infrastructure and Resources

Adequate technological infrastructure must be prepared, and the necessary resources must be provided, as these are crucial aspects of technology integration. Stable internet networks, availability of hardware and supporting software, as well as relevant digital content and resources, are some of the things that need to be prepared by educational institutions. To ensure smooth technology operations, educational institutions must prioritize the management and maintenance of infrastructure.

(4) Integrated Curriculum

The curriculum should be designed to integrate the use of technology in learning strategies, assessment, and skill development for students. This can be achieved by designing learning units that incorporate technology, teaching digital skills, and using technological tools in the teaching and learning process.

(5) Evaluation and Monitoring

Continuous monitoring and evaluation are essential to assess the effectiveness of technology integration in educational management. The evaluation process can include direct classroom observations, feedback from students and teachers, and analysis of relevant data. The results of this evaluation can be used to identify areas for improvement, adopt best practices, and make necessary changes in technology implementation.

The Implementation of E-Leadership in Education

Leaders are being compelled by the Covid-19 pandemic to employ technology more quickly in their positions of authority. The physical limitations imposed by the epidemic have made the fast advancement of technology apparent. Leaders who used to guide through face-to-face communication now need to use technology to maximize their roles. Technology not only alters organizational structures and methods of operation, but it also makes leaders more flexible (Komariah, 2021).

Digital leadership, or E-leadership, can be understood through two main aspects: leadership and technology. In this context, school principals need to have skills in planning, organizing, implementing, and supervising. Innovation in learning by utilizing Information and Communication Technology (ICT) requires institutional arrangements and coordination mechanisms that ensure policy alignment in the learning process within educational institutions (Talibo et al., 2022).

According to Zamroni et al. (2021), there are four actions that can be taken in implementing digital leadership in education:

(1) Planning

Planning is a predetermined direction of action. School principals, in creating these plans, must first understand how e-leadership works in the creation and use of technology to support the formulation and creation of these plans. Before making policy decisions, school principals first approach all aspects related to the school. In their approach to identifying problems, principals use instruments integrated with ICT, such as Google Forms.

(2) Organizing

Organizing is the process of arranging human resources towards common goals. The organization structure is important for understanding the tasks and responsibilities of human resources within the organization. School principals, in organizing activities and human resources, use a combination of connectivity and web-based working methods, as well as software from service providers, such as blogs and Facebook.

(3) Direction and Delegation

Direction and delegation are conducted by school principals to achieve planned and determined targets. Principals provide direction and delegate tasks to subordinates using ICT media and software provided by various software providers, such as email, WhatsApp, Telegram, Google Meet, and Zoom Meetings. The use of these tools is, of course, based on the optimal utilization of each software, influenced by connectivity levels and geographical location.

(4) Control

Control is necessary for school principals as leaders to assess the results of related parties. Principals build information systems to prepare reports containing activities, activity realization, and periodic work achievements for users and managers through Dashboard Technology.

The Role of E-Leadership in Optimizing Total Quality Management in Education

School performance is significantly impacted by digital leadership, or e-leadership; it is also influenced by organizational commitment and service quality (Sunarsi et al., 2020). E-leadership acts as a booster for Total Quality Management (TQM) in education. It achieves this by using digital tools and strategies to streamline and improve how educational institutions are managed and run. Here's a detailed exploration of this role:

(1) Strategic Planning and Implementation

E-leaders leverage technology (ICT) to craft and execute strategic plans that uphold the principles of TQM. This involves setting clear goals, establishing policies, and guaranteeing that technology actively supports continuous improvement. For example, planning software like project management tools and data analysis platforms empower leaders to track progress and base decisions on concrete data.

(2) Communication and Collaboration

Clear communication is essential for TQM, and e-leadership strengthens this by utilizing digital platforms. These platforms include email, chat apps, video conferencing (like Zoom or Google Meet), and collaborative software (like Slack or Microsoft Teams). These tools enable educators, students, and administration to communicate and work together seamlessly, regardless of location. This ensures everyone is on the same page regarding the institution's quality goals.

(3) Training and Professional Development

E-leaders champion ongoing professional development for their staff. They leverage online training platforms to boost teachers' and staff's digital fluency and technical skills. These skills are crucial for seamlessly integrating technology into teaching practices. Learning Management Systems (LMS) are valuable tools for delivering training and tracking progress.

(4) Monitoring and Evaluation

E-leadership strengthens the ability to track and assess educational progress and results. Leaders leverage digital dashboards and data analytics tools to gather and analyze information on various performance measures, like student achievement, teacher effectiveness, and operational efficiency. This real-time data empowers them to make informed decisions that drive quality improvements.

(5) Enhancing Student Engagement and Learning

E-leadership champions educational technology that boosts student engagement and learning. This involves integrating interactive learning tools, virtual classrooms, and digital resources that cater to various learning styles and needs. By embracing these technologies, leaders ensure continuous improvement in teaching methods, driving them towards exceptional quality standards.

(6) Building a Culture of Continuous Improvement

E-leaders cultivate a culture of continuous improvement by leveraging ICT to create ongoing feedback loops and engage stakeholders. Online surveys, feedback forms, and digital suggestion boxes empower them to gather insights from students, parents, and staff. This valuable input is key to pinpointing areas for improvement and implementing effective changes.

(7) Resource Management

TQM relies heavily on efficient resource management, and e-leadership amplifies this by utilizing digital tools for budgeting, scheduling, and resource allocation. Enterprise Resource Planning (ERP) systems, for instance, can streamline the management of finances, personnel, and physical assets. This ensures optimal resource utilization in support of high-quality education.

CONCLUSION

Digital leadership, or e-leadership, acts as a cornerstone for maximizing Total Quality Management (TQM) in education. It achieves this by utilizing information and communication technology (ICT) to streamline crucial areas like strategic planning, communication, staff development, progress tracking, student engagement, and resource allocation. This empowers e-leaders to cultivate an environment that fosters ongoing improvement and delivers exceptional educational outcomes, directly aligning with the core principles of TQM.

Schools seeking to improve educational quality should consider adopting e-leadership practices. By leveraging technology and the strategies outlined above, schools can create a more efficient, data-driven, and collaborative environment that fosters continuous improvement and ultimately benefits students, teachers, and the entire educational community.

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